1995 MACKENZIE MOUNTAIN NON-RESIDENT HUNTER HARVEST SUMMARY

103-06893/

1995 MACKENZIE MOUNTAIN NON-RESIDENT HUNTER HARVEST SUMMARY

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Government of the Northwest Territories

Norman Wells, NWT

1996

Manuscript Report No. 90

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ABSTRACT

Data on harvest of big game in the Mackenzie Mountains by non-resident hunters were recorded for the 1995 hunting season by each of the eight licenced outfitters that operate in the area, by Department of Renewable Resources Officers, and by personnel at hunter check stations in Tungsten and Mile 222. The data recorded included: date(s) of harvest; tags held for each species; horn/antler measurements for Dall's sheep, woodland (mountain) caribou, moose, and mountain goats; age of Dall's sheep; location of kill sites; hunter effort; sex of mountain goats, wolves, and wolverines harvested; and numbers of animals observed for each species.

A total of 344 hunters bought non-resident hunting licences in 1995 and 328 actually participated in at least some sport hunting. Non-resident aliens comprised 77.1% of all non-resident hunters. Outfitter Harvest Report forms were received for 337 hunters (98.0%).

Dall's sheep tags were bought by 218 non-residents, 205 hunters hunted sheep, and 190 rams were harvested (92.7% success), with an average age of 9.7 years. The average length of a sheep hunt was 5.1 $\pm$ 2.9 days. Woodland caribou tags were bought by 223 non-residents, 187 hunters hunted caribou, and 177 bulls were harvested (83.6% success). The average length of a caribou hunt was 4.5 $\pm$ 3.4 days. Moose tags were bought by 69 non-residents, 59 hunters hunted moose, and 48 bulls were harvested (81.4% success). The average length of a moose hunt was 4.4 $\pm$ 2.6 days. Mountain goats were bought by 16 non-residents, 12 hunters hunted goats, and 6 goats (1 male, 5 females) were harvested (50.0% success). Wolf tags were bought by 71 non-residents, 56 hunters hunted wolves, and 14 wolves (10 males, 4 females) were harvested (25.0% success). Wolverine tags were bought by 35 non-residents, 27 hunters hunted wolverine, and 1 wolverine (male) was harvested (3.7% success).

Compared to the twelve year period 1979-1990, the 1995 average trophy size of Dall's sheep, woodland caribou, moose, and mountain goats and the mean age of Dall's sheep rams harvested has remained fairly constant, whereas the number of hunters has increased by 55.7%, the number of sheep taken by 18.0%, the number of caribou by 44.6%, and the number of moose by 100.0%.

The impact of non-resident sport hunting on big game populations and the sustainability of the recent increases in harvests in the Mackenzie Mountains can still not be determined because of the lack of population inventory surveys for each harvested species.

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INTRODUCTION

The Mackenzie Mountains were opened to non-resident sport hunters in 1965 and the region is known throughout the world for its Dall's sheep, woodland (mountain) caribou, and moose hunting opportunities, and for the true wilderness experience that is available to hunters. The Mackenzies (Wildlife Management Zone E/1) have eight Class "A" outfitters (Fig. 1), each of whom has the exclusive privilege to provide outfitting services in their zones; the mean size of E/1 outfitting zones is 10, 923 km^2 (range 7,250-19,000 km^2).

The Department of Renewable Resources (DRR) in Norman Wells (Sahtu Region) has the responsibility of annually monitoring non-resident harvest in the Mackenzie Mountains. Regulation of big game hunting and enforcement of regulations in the mountains is minimal (Latour and MacLean 1994). Seasons for each big game species vary slightly and the total non-resident hunting season lasts from 15 July to 31 October. There are currently no restrictions on the numbers of Dall's sheep, woodland caribou, mountain goats, moose, wolves, wolverine, and black bears that each outfitter can take in his zone. Individual non-resident hunters are annually restricted to one each of the following big game species: Dall's sheep (male with $\geq$ 3/4 horn curl), woodland caribou (either sex), moose (male only), mountain goat (either sex), wolf (either sex), wolverine (either sex), and black bear (adult not accompanied by a cub or cubs). There has been no non-resident hunt for grizzly bears since 1982 as a result of concerns about over-harvest (Latour and MacLean 1994).

Each year the DRR, under provisions laid out in the Northwest Territories *Wildlife Act* (R.S.N.W.T. 1988 c.W - 4; Latour and MacLean 1994), requires that all hunters, successful or not, who hold a non-resident hunting licence with a Class "A" outfitter, submit a Harvest Report Form on which all hunting activities are recorded (Fig.. 2a and 2b). This form has undergone considerable evolution in the past 30 years and was again updated prior to the 1995 hunting season. The Harvest Report Forms provide a basis to monitor the impact that non-resident sport hunting in the Mackenzie Mountains has on the region's wildlife populations (Latour and

MacLean 1994). In the absence of sufficient funds to do regular and extensive population inventories of harvested species in the Mackenzie Mountains, the Harvest Report Forms are the single most consistent means DRR has to try to detect any population changes that may be occurring in harvested species, and to obtain trends in numbers of non-resident hunters and the species in which they are interested. These data are also made available to all persons that are interested in the Class "A" outfitting industry in the western Arctic and elsewhere.

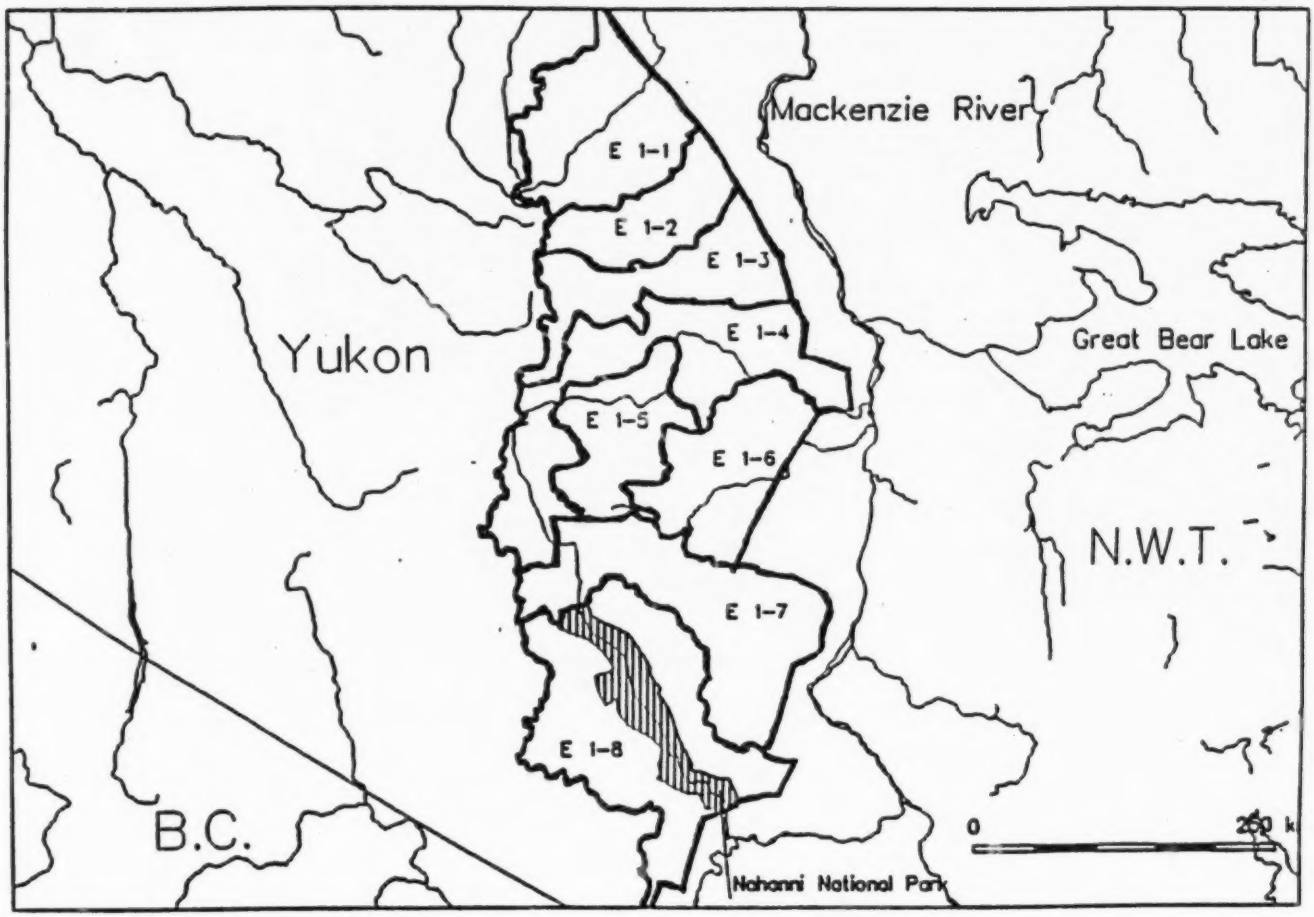

Figure 1. Outfitter zones in the Mackenzie Mountains, Northwest Territories

Please complete the information requested in all non-shaded areas on both sides of this form and return the form to Sahtu Region Biologist, Department of Renewable Resources, P.O. Box 130, Norman Wells, NT X0E 0V0.

Pursuant to s.25(c) of the Wildlife Business Regulations

_____
Superintendent of Wildlife

HUNTER INFORMATION

Last Name	First Name and Initials		
Address - number and street, box number	Town, City	Province, State	Country
Postal/Zip Code		Country Postal/Zip Code	

Hunting Licence#_____ Outfitting Zone:_____ Company:_____
Guide:_____ Guide's Licence Number:_____

DALL'S SHEEP

Important: Please do not fill in shaded areas below.

Licenced for Dall's Sheep ☐ Tag #_____ ( ) Days hunted for Dall's Sheep ___ Harvested a Dall's Sheep ☐

HARVEST DATA						
Kill Date (m-d-y)	Lat (xx° xx' N)	Long (xx° xx' W)		Comments		Plug #
R Horn Length (cm)	L Horn Length (cm)	Spread (cm)	R Horn Base (cm)	L Horn Base (cm)	Age	Broomed?
						R ☐ L ☐

ESTIMATED NUMBER OF DALL'S SHEEP SEEN				
3/4 and Full Curl Rams	Less than 3/4 Curl Rams	Ewes	Lambs	Yearlings

WOODLAND CARIBOU

Licenced for Caribou ☐ Tag#_____ ( ) Days hunted for Caribou ___ Harvested a Caribou ☐

HARVEST DATA						
Kill Date (m-d-y)	Lat (xx° xx' N)	Long (xx° xx' W)	R Antler Length (cm)	L Antler Length (cm)	Spread (cm)	Comments

ESTIMATED NUMBER OF WOODLAND CARIBOU SEEN		
Bulls	Cows	Calves

MOOSE

Licenced for Moose ☐ Tag#_____ ( ) Days hunted for Moose ___ Harvested a Moose ☐

HARVEST DATA				
Kill Date (m-d-y)	Lat (xx° xx' N)	Long (xx° xx' W)	Widest Antler Spread (cm)	Comments

ESTIMATED NUMBER OF MOOSE SEEN		
Bulls	Cows	Calves

MOUNTAIN GOAT

Licenced for Mt. Goat ☐ Tag# _____ ( ) Days hunted for Mt. Goat ___ Harvested a Mt. Goat ☐

HARVEST DATA						
Kill Date (m-d-y)	Lat (xx° xx' N)	Long (xx° xx' W)	R Horn Length (cm)	L Horn Length (cm)	Sex	Comments

Figure 2a. 1995 Mackenzie Mountain Outfitter Hunt Report Form (Page one)

	Wolf	Wolverine	Black Bear	Grizzly Bear
Number of days hunted				
Date of Kill				
Sex				
Tag Number				
Number Seen				

THE SUPERINTENDENT OF WILDLIFE HAS REQUESTED THE INFORMATION INDICATED ON THIS FORM PURSUANT TO s.25(c) OF THE WILDLIFE BUSINESS REGULATIONS. IT IS AN OFFENSE TO MAKE OR GIVE FALSE OR MISLEADING STATEMENTS OR INFORMATION ON ANY FORM REQUIRED BY THE WILDLIFE ACT, (SECTION 86(1) WILDLIFE ACT).

It is an offense to make a false declaration.

Outfitter Declaration: I hereby declare that this hunter hunted and/or killed only the above wildlife species and the numbers, sexes, locations, and dates are true and correct. I have authority to sign on behalf of the company and bind it.

Signature:_____ Date:_____

Guide Declaration: I hereby declare that I personally guided this hunter and this hunter hunted and/or killed only the above listed wildlife species and that the numbers, sexes, locations, and dates are true and correct.

Signature:_____ Date:_____

Hunter Declaration: I hereby declare that I have hunted and/or killed only the above listed wildlife species and that the numbers, sexes, locations, and dates are true and correct and no material part has been left out

Signature:_____ Date:_____

FOR DEPARTMENT OF RENEWABLE RESOURCES USE ONLY

EXPORT PERMIT NO. 1		EXPORT PERMIT NO. 2	
CONSIGNEE:		CONSIGNEE:	

WILDLIFE CERTIFICATION NUMBER	
CITES PERMIT NUMBER	

CHECKED BY:	
DATA ENTERED BY:	

Figure 2b. 1995 Mackenzie Mountain Outfitter Hunt Report Form (Page two)

METHODS

Prior to the start of the 1995 hunting season, each Class "A" outfitter in the Mackenzie Mountains received sufficient copies of the 1995 Mackenzie Mountain Outfitter Hunt Report forms for all their clients for the year. We required that these be returned for each non-resident hunting licence holder with a particular outfitter to the Regional Biologist in Norman Wells whether or not any harvest of wildlife occurred, and whether or not a client actually hunted.

Data were entered onto *dBASE IV ver. 1.5* (Borland International Inc.) database management software for storage and then transferred to *Excel 5.0* (Microsoft Corporation) spreadsheets for analyses.

In cooperation with the outfitters, persistent attempts were made to obtain complete, signed forms for every non-resident that obtained a non-resident hunting licence.

RESULTS

Number and Nationality of Non-resident Hunters

A total of 344 hunters bought N.W.T. non-resident hunting licences in 1995. Of those, 328 (95.3 %) used their licences to participate in at least some sport hunting.

Non-resident alien hunters (N=262) comprised 77.1% of all non-resident hunters whose nationality was known (N=340) and Canadians comprised 22.9% (N=78); the nationality of four hunters is unknown.

Outfitter Compliance With Harvest Survey

We received forms for a total of 337 hunters, which represents a 98.0% rate of compliance.

Dall's Sheep (*Ovis dalli)*

Harvest and Effort

Dall's sheep hunting tags were sold to a total of 218 licenced non-resident hunters, i.e., 63.4% of non-resident hunting licence holders. A total of 205 hunters spent at least some time hunting Dall's sheep in 1995 (94.0% of sheep tag holders) and they took a total of 190 rams, which represents a 92.7% success rate. For those tag holders that spent at least some time hunting Dall's sheep, the average length of a sheep hunt was 5.1 $\pm$ 2.9 days (range 1 to 14 days).

Trophy Size

Table 1. Horn measurements of Dall's sheep rams harvested by non-resident hunting licence holders in the Mackenzie Mountains, 1995. (Note: horn measurements were taken by Department of Renewable Resources personnel and are in centimeters)

	Horn Length		Horn Circumf.		Horn Spread
	Left	Right	Left	Right	
N	189	189	189	189	190
Mean	89.6	89.3	33.2	33.2	60.0
SD	8.0	8.0	1.8	1.8	7.7
Max	107.0	107.0	38.0	38.0	83.5
Min	57.0	55.0	27.0	28.0	42.0

Age of Rams Taken

The average age of 189 rams that were aged by DRR personnel was 9.7 $\pm$ 1.6 years (range 5.5 to 14.5 years). Seventy (35%) harvested rams were $\geq$ 10.5-years-old.

Broomed Horns

Brooming was reported by DRR personnel on 28.7% (51 of 178) of left and 31.8% (56 of 176) of right horns.

Sheep Observations

Table 2. Dall's sheep observations reported by non-resident hunting licence holders in the Mackenzie Mountains, 1995.

Age/sex Class	Mean Number Seen	No. Hunters Reporting
≥3/4 Curl Ram	11.4	181
<3/4 Curl Ram	9.1	180
Ewes	26.2	172
Lambs	17.6	172
Yearlings	8.0	119

Woodland Caribou (*Rangifer tarandus caribou)*

Harvest and Effort

Woodland caribou tags were sold to a total of 223 licenced non-resident hunters, i.e., 64.8% of non-resident hunting licence holders. A total of 187 caribou tag holders spent at least some time hunting caribou in 1995 (83.6% of caribou tag holders) and they took a total of 177 bulls, which represents a 94.7% success rate. For those tag holders that spent at least some time hunting woodland caribou, the average length of a caribou hunt was 4.5 ± 3.4 days (range 1 to 20 days).

Trophy Size

Table 3. Antler measurements of woodland caribou bulls harvested by non-resident hunting licence holders in the Mackenzie Mountains, 1995. (Note: antler measurements were taken by licenced guides and are in centimeters)

	Antler Length		Antler Spread
	Left	Right	
N	171	171	170
Mean	116.5	116.5	91.6
SD	12.7	13.7	13.3
Max	170.0	200.0	125.0
Min	89.0	89.0	60.0

Woodland Caribou Observations

Table 4. Woodland caribou observations reported by non-resident hunting licence holders in the Mackenzie Mountains, 1995.

Age/sex Class	Mean Number Seen	No. Hunters Reporting
Bulls	28.6	185
Cows	68.6	183
Calves	33.1	162

Moose (*Alces alces)*

Harvest and Effort

Moose tags were sold to a total of 69 licenced non-resident hunters, i.e., 20.1% of non-resident hunting licence holders. A total of 59 moose tag holders spent at least some time hunting moose in 1995 (85.5% of moose tag holders) and they took a total of 48 bulls, which represents a 81.4% success rate. For those tag holders that spent at least some time hunting moose, the average length of a moose hunt was 4.4 $\pm$ 2.6 days (range 1 to 12 days).

Trophy Size

Table 5. Antler measurements of moose bulls harvested by non-resident hunting licence holders in the Mackenzie Mountains, 1995. (Note: antler measurements were taken by licenced guides and are in centimeters)

	Antler Width
N	47
Mean	143.7
SD	20.0
Max	179.5
Min	75.5

Moose Observations

Table 6. Moose observations reported by non-resident hunting licence holders in the Mackenzie Mountains, 1995.

Age/sex Class	Mean Number Seen	No. Hunters Reporting
Bulls	5.4	70
Cows	5.3	69
Calves	2.3	64

Mountain Goat (*Oreamnos americanus*)

Harvest and Effort

Mountain goat tags were sold to a total of 16 licenced non-resident hunters, i.e., 4.7% of non-resident hunting licence holders. A total of 12 mountain goat tag holders spent at least some time hunting mountain goats in 1995 (75.0% of mountain goat tag holders) and they took a total of 6 goats, which provides a 'success rate' of 50.0%. Five (83.3%) of the goats taken were nannies; one (16.7%) was a billy. For those tag holders that spent at least some time hunting mountain goats, the average length of a goat hunt was 4.5 $\pm$ 2.4 days (range 2 to 9 days).

Trophy Size

Table 7. Horn measurements of mountain goats harvested by non-resident hunting licence holders in the Mackenzie Mountains, 1995. (Note: horn measurements were taken by licenced guides and are in centimeters)

	Horn Length	
	Left	Right
N	5	5
Mean	21.4	21.3
SD	1.9	1.7
Max	23.5	23.0
Min	19.0	19.5

Mountain Goat Observations

A mean of 6.2 mountain goats were observed by the 5 hunters that reported their observations of the species.

Carnivores

Wolf (Canis lupus)

Wolf tags were sold to a total of 71 licenced non-resident hunters, i.e., 20.6% of non-resident hunting licence holders. A total of 56 wolf tag holders spent at least some time hunting wolves in 1995 (78.9% of wolf tag holders) and they took a total of 14 wolves, which represents a 25.0% success rate. Four (28.6%) of the wolves taken were females; ten (71.4%) were males. For those tag holders that spent at least some time hunting wolves, the average length of a wolf hunt was 7.7 ± 4.7 days (range 1 to 20 days).

A mean of 2.3 wolves (range 0 to 16) were observed by the 119 hunters that reported their observations of wolves; 64.7% of those hunters observed at least one wolf.

Wolverine (*Gulo gulo*)

Wolverine tags were sold to a total of 35 licenced non-resident hunters, i.e., 10.2% of non-resident hunting licence holders. A total of 27 wolverine tag holders spent at least some time hunting wolverines in 1995 (77.1% of wolverine tag holders) and they took a total of one wolverine (a male), which represents a 3.7% success rate. For those tag holders that spent at least some time hunting wolverines, the average length of a wolverine hunt was 8.4 ± 4.8 days (range 1 to 20 days).

A mean of 0.3 wolverines (range 0 to 2) were observed by the 80 hunters that reported their observations of wolverines; 23.8% of those hunters observed at least one wolverine.

Black Bear (*Ursus americanus*)

Only one tag was sold to non-resident hunting licence holders for black bears in the Mackenzie Mountains in 1995. The hunter's report form did not indicate whether or not he actually hunted for black bear; no black bears were harvested in the Mackenzie Mountains by non-resident hunting licence holders in 1995.

A mean of 0.3 black bears (range 0 to 2) were observed by the 44 hunters that reported their observations of black bears; 20.5% of those hunters observed at least one black bear. Of the nine hunters that observed black bears, all but one were in the three southern hunting zones (E/1-6, E/1-7, and E/1-8); the sole sighting in one of the four northern zones was in E/1-4.

Grizzly Bear (*Ursus arctos*)

Grizzly bear hunting in the Mackenzie Mountains is closed to non-resident hunting licence holders.

A mean of 2.8 grizzly bears (range 0 to 16) were observed by the 138 hunters that reported their observations of grizzly bears; 89.1% of those hunters observed at least one grizzly bear. Of the 123 hunters that observed grizzly bears, 60 (48.8%) were in the four northern hunting zones and 63 (51.2%) were in the four southern zones.

Table 8. Summary of non-resident hunting licence holder tag preferences, total harvest, success rates, and effort in the Mackenzie Mountains (Zone E1/1), 1995. A total of 344 individuals purchased non-resident hunting licences.

Species	No. Tags Sold	% of All Hunters That Bought Tag	No Tag Holders That Hunted	No of Animals Harvested	% Success	Mean No. Days Hunted ± SD
Dall's Sheep	218	63.4	205	190	92.7	5.1 ± 2.9
Woodland Caribou	223	64.8	187	177	94.7	4.5 ± 3.4
Moose	69	20.1	59	48	81.4	4.4 ± 2.6
Mountain Goat	16	4.7	12	6	50.0	4.5 ± 2.4
Wolf	71	20.6	56	14	25.0	7.7 ± 4.7
Wolverine	35	10.2	27	1	3.7	8.4 ± 4.8
Black Bear	1	0.3	?	0	?	?

Table 9. Outfitted non-resident hunter harvests in the Mackenzie Mountains, 1991-1995.

Year	No. Hunters	Dall's Sheep	Woodland Caribou	Moose	Mountain Goat	Wolf	Wolverine
1991	322	158	128	22	5	6	1
1992	360	212	165	37	4	4	0
1993	319	189	193	53	9	5	3
1994	352	195	149	44	6	14	2
1995	344	190	177	48	6	14	1
Mean 91-95	339	189	162	41	6	9	1
Mean 79-90	221	161	112	24	?	?	?

Table 10. A comparison of trophy quality, as determined by horn and antler measurements, between the period 1979-90 (as reported in Latour and MacLean 1994) and 1995 for ungulate species harvested by non-resident hunting licence holders in the Mackenzie Mountains. All measurements are in centimeters unless otherwise shown and sample size is shown in parentheses

Measurement	1979-1990 Mean	1995
Dall's sheep right horn length	90.4 (1755)	89.3 (189)
Dall's sheep horn annuli age (yr)	9.5 (1755)	9.7 (189)
Woodland caribou right antler length	114.5 (1037)	116.5 (171)
Moose antler spread	139.8 (236)	143.7 (47)
Mountain goat right horn length	20.3 (17)	21.4 (5)

DISCUSSION

Interest in hunting the Mackenzie Mountains among non-resident hunters remains high, as is shown in Table 8. Latour and MacLean's (1994) 12-year summary of outfitted sport hunting (1979 to 1990) reported a mean of 221 non-resident hunters in the Mackenzies per year; in the 1990's the mean has risen to 340, which represents an increase of 53.8%. 1995 was obviously another good year for outfitters to attract non-resident hunters to their zones. The citizenship of non-resident hunters has changed very little since 1979 - Latour and MacLean (1994) reported that Canadian citizens constituted an annual average of 22% of all non-resident hunters in the Mackenzie Mountains between 1979 and 1990; 22.9% of all non-resident hunters were Canadians in 1995.

Trophy qualities of sheep, caribou, moose, and goats harvested in 1995 (Table 9), as determined by horn and antler measurements, were very similar to the 1979-1990 values reported in Latour and MacLean (1994) and any differences are likely statistically non-significant, although those tests have yet to be performed.

Hunter effort for Dall's sheep, woodland caribou, and moose for the combined periods of 1979-1985 and 1988-1990 was 5.3 days, 3.5 days, and 3.8 days, respectively (Latour and MacLean 1994). In 1995 the number of days spent hunting these species, by those hunters that actually participated in hunting the species for which they held tags, was 5.1 days, 4.5 days, and 4.4 days, respectively (Table 8). The 28.6% increase in effort and 44.6% increase in numbers of woodland caribou taken in 1995 compared to the 1979-90 period (Latour and MacLean 1994), and the 100.0% increase in numbers of moose taken and 15.8% increase in effort are trends to which we must pay close and careful attention. However, there has been no real change in trophy size for these species in 1995 versus 1979-90 (Table 9).

The high success rates for both Dall's sheep and woodland caribou (92.7% and 94.7%; Table 8), consistent trophy quality, and consistent age structure of harvested Dall's rams all suggest that overharvest of these species is not occurring at present. However, we must agree with Latour and MacLean (1994) and clearly state that without knowledge of population sizes and productivity for

the harvested species, it is difficult to properly determine the sustainability of current levels of harvest, especially in light of the trend towards increases in those harvests. The scarcity of population and productivity data, and our knowledge of flaws in the Harvest Report form procedure, mean that we cannot determine if current levels of harvest for Dall's sheep, woodland caribou, and moose are sustainable and there is a great need for considerably more survey work than has been done in the past.

Mountain goat harvest remains a small proportion of the total annual non-resident big game sport harvest in the Mackenzie Mountains (Table 9) and between 1991 and 1995 all 30 goats harvested came from three zones - E1/4, E/1-7, and E/1-8. Only 50% of mountain goat tag holders in 1995 were successful in obtaining a goat, which suggests the high degree of difficulty in hunting this relatively scarce and inaccessible species. It is interesting, and of some concern, that in 1995, five of six goats taken were adult females. This is likely a result of the difficulty for hunters and guides to correctly identify male and female goats (Rideout 1978) and may also indicate a high degree of kid mortality between birth and hunting season if hunters refrain from shooting those goats that are accompanied by kids.

Wolf and wolverine tags were purchased by 21% and 10% of all non-resident hunters, respectively; success rates for these species were considerably lower than for any ungulate species at 25% and 4%, respectively. There has been a large increase in the numbers of wolves taken across the Mackenzie Mountains by non-residents in the past two years; in each of 1994 and 1995 a total of 14 wolves were harvested, whereas the 1979-90 annual average was 8 wolves (Latour and MacLean 1994). The number of wolverines taken is low and has always been low (Latour and MacLean 1994). The 80 hunters that reported numbers of wolverines seen reported a mean of only 0.3 wolverines and only 24% of hunters making a report saw an animal whereas 65% of hunters that reported their wolf observations saw at least one wolf.

In 1995 we asked hunters to report their sightings of grizzly bears with the objective of using sightings reported by non-resident hunters as an annual index of abundance of this species. We had 138 hunters who reported their sightings, 89% of those saw at least one grizzly, and the mean

number of grizzlies seen was almost 3 bears. An almost equal number of hunters saw bears in the four southern and four northern zones, which indicates the wide distribution of this species. We plan to continue to collect these data on bear sightings, although planned changes to the 1996 Harvest Report form do not include collection of animal observation data. We expect also that outfitters will ensure that we are well appraised of relative bear abundance in their respective hunting zones and that suggestions for their management will be received.

ACKNOWLEDGEMENTS

Cooperation from the outfitters operating in the Mackenzie Mountains in 1995 was very good and we appreciate the extra effort they showed in ensuring that all their hunters had completed and signed their harvest report forms, and in getting those forms to our Norman Wells office. We also thank Renewable Resources officers and clerks in Norman Wells, Fort Simpson, and Fort Liard, and personnel from Mile 222 and Tungsten hunter check stations for collecting and organizing data from non-resident hunters in their respective offices and stations.

We also greatly appreciate the efforts, interest, and cooperation shown by the vast majority of non-resident hunters and the guides in correctly completing the forms, reporting observations of animals seen, and doing the various antler and horn measurements.

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